6 Ports SAS/SATAII Backplane User Manual Rev. 1.0

Supplier : ***Chenbro Micom Co., Ltd .***

Description : ***6 Ports SAS/SATAII Backplane***

Chassis : ***SR106***

Part No : ***80H102106-004 Rev. A1***

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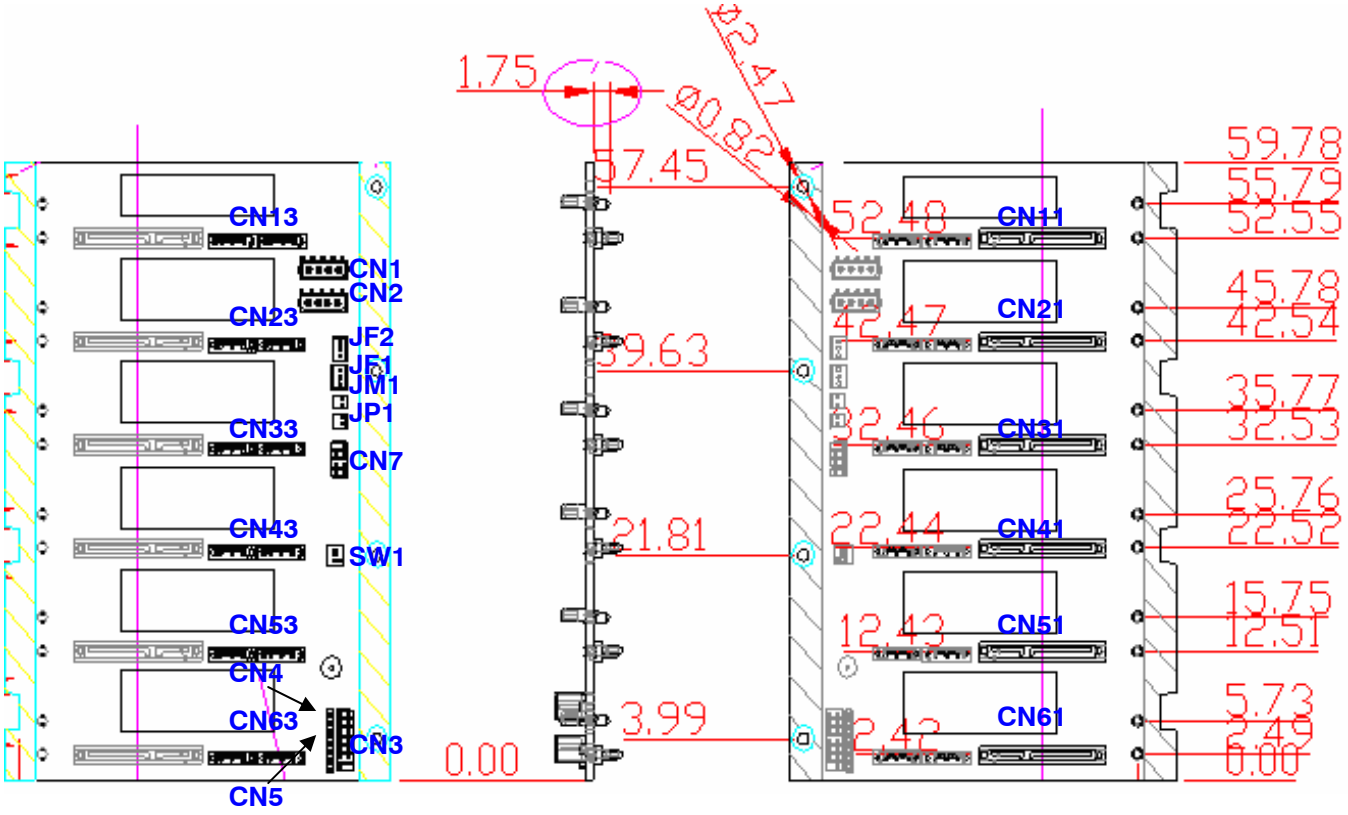
General Hardware Specification

Host Interface	***SAS/SATA II interfaces(single path)***
HDD Interface	***HDD connector (power + drive : 7+7+15 pins) for SAS (Serial Attached SCSI) drive , also compatible to SATA II drive (7+15 pins)***
Hot-Swap Functionality	***Support inrush current control and Pre Charge for drive hot-swapping (allow on line replace Hard Disk Drive)***
LED Display	***On Board LED indicates Hard Disk Drive status: Power LED – Blue color (When HDD is present) Access LED –Green color (When HDD is busy) Error LED –Red color (When HDD is fail)***
Alert Monitoring	***1. Fan speed monitoring : a. 3P3C connector disable/enable by DIP sw. b. Fan alarm threshold is 2000rpm 2. Overheat monitoring : a. Two temperature sensors on HDD site b. Two optional Temp. selection :55℃/65℃ 3.Redundant PSU monitoring : a. PSU fail signal input : TTL signal input (normal high and pull-high resistor is required) b .PSU alarm mute output : short two pins together when alarm mute switch (on the front site) is pressed 4. Alert Notification : a. Support one buzzer for audible alarm b. 1× fail LED outputs for fan/overheat/PSU failure events (on the front site) c. 1 x alarm mute button for disabling audible alarm d. Fan & overheat fail will trigger both audible alarm & failure LED , PSU will trigger fail LED only , but will trigger its audible alarm on PSU***

HDD Fail and Activity Functionality supported	*1. HDD activity LED source is selected by 2 x 7 pins headers "jumper setting" for :* *a. from pin 11 of HDD (As HDD support)* *b. or external HBA Card by adapter wire* *2. HDD Faulty LED is driven by 2 pcs single 4 pins headers :* *Discrete solution : need one discrete cable (port to port) connection , only reserves for those which HBA RAID cards can provide such this interface*
Connectors	*1. SAS(15+7+7 pins) x 6 (for HDD)* *2. SAS(7 pins) x 6 (for Host)* *3. DC power connectors in big 4-pin D-type x 2 for +5V, +12V from power supply* *4. Power alarm and mute connectors x 2* *5. HDD Activity connector (2 x 7 pins headers) x 1* *6. HDD Fail connector (4 pins headers) x 2* *7. Fan (3P3C) connectors x 2* *8. Failure LED Connector (2 x 4 pins headers) x 1* *Above detail pin definition see below information*
Dimension	**185(L) x 1130(W) x 2.4(H) mm**
Material	**FR4 4layer**

Backplane Layout

Backplane View



Backplane Connector

(1) [CN11/CN21/CN31/CN41/CN51/CN61] : 29-pins SAS HDD Connector

(2) [CN13/CN23/CN33/CN43/CN53/CN63] : 7-pins SAS/SATAII Host Connector

(3) [CN1 /CN2] : Power Connectors

(4) [CN3] : External HDD Activity LED Connector (from RAID Card)

(5) [CN4/CN5] : Discrete HDD Failure LED Connector (from RAID Card)

(6) [CN7] : Fan/PWR/Temp. Failure LED Connector (to Front Panel LED Display)

(7) [JF1/JF2] : Fan Connectors

(8) [SW1] : Functionality / Mode Setting

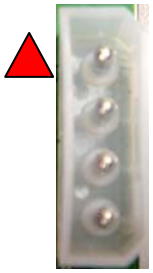
(9) [JP1] : Power Failure Input (From Redundant Power Supply)

(10) [JM1] : Power Failure Alarm Mute Output (to Redundant Power Supply)

Pin Assignment

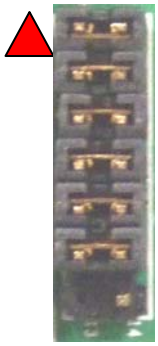
[CN1 /CN2] Power Connector

Pin	Def.
1	+5V
2	GND
3	GND
4	+12V



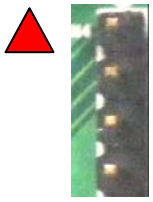
[CN3] HDD Activity LED Connector

Pin	Def.	HDD No.
1	External Activity LED Signal Input (Remove jumper then plug adapter wire to connect RAID card)	CN11
3		CN21
5		CN31
7		CN41
9		CN51
11		CN61
13	Key Pin	
14	N/A	
1 & 2	As HDD can support activity LED signal , using jumper to close each two pins shown left side	CN11
3 & 4		CN21
5 & 6		CN31
7 & 8		CN41
9 & 10		CN51
11&12		CN61



[CN4] HDD Fail LED Connector

Pin	Def.
1	Fail LED for HDD CN11
2	Fail LED for HDD CN21
3	Fail LED for HDD CN31
4	Fail LED for HDD CN41

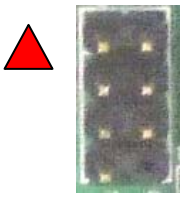


[CN5] HDD Fail LED Connector

Pin	Def.
1	Fail LED for HDD CN51
2	Fail LED for HDD CN61
3	N/A
4	N/A

[CN7] Fan/PWR/Temp. Failure LED Connector

Pin	Def.
1	Fan Failure LED +
2	Fan Failure LED -
3	Power Failure LED +
4	Power Failure LED -
5	Alarm Mute Switch +
6	Alarm Mute Switch -
7	N/A
8	Key Pin



[JF1 /JF2] Fan Connector

Pin	Def.
1	GND
2	+12V
3	Sensor

[JP1] Redundant PSU Module Fail Connector

Pin	Def.
1	GND
2	Power Fail Signal (TTL Active Low)

[JM1] Alarm Mute Connector

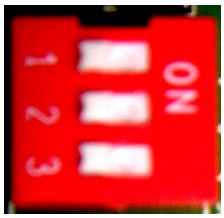
Pin	Def.
1	Switch -
2	Switch +

[SW1 (1)] DIP Switch Function

Fan1 Detection Enable/Disable	*SW1-1*
Enable	*ON*
Doisable	*OFF*

[SW1 (2)]

Fan2 Detection Enable/Disable	*SW1-2*
Enable	*ON*
Doisable	*OFF*

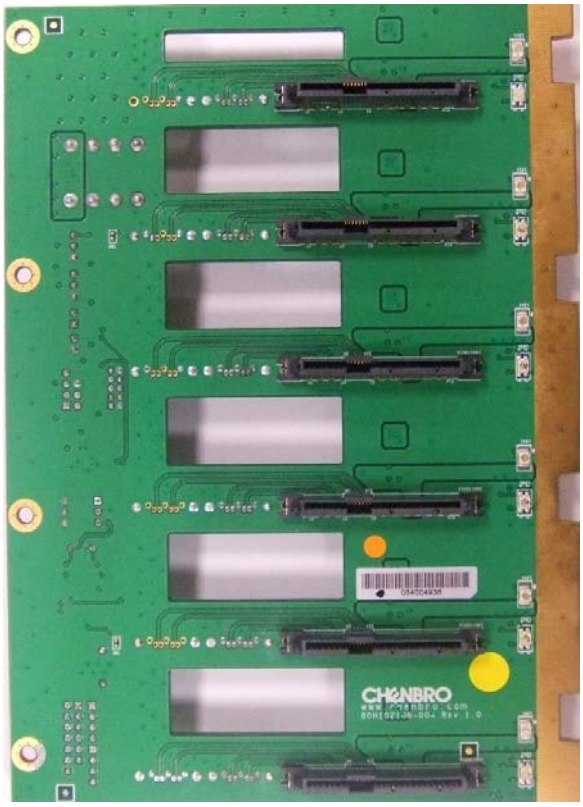


[SW1 (3)]

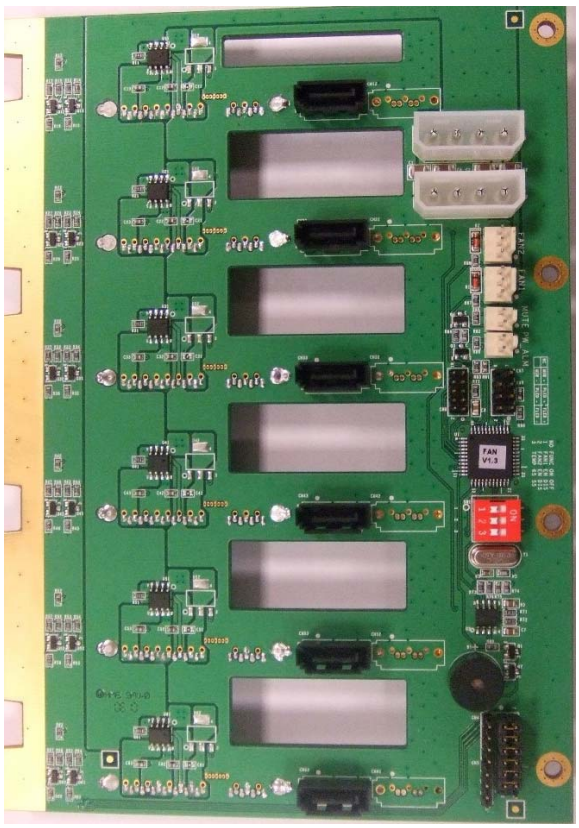
Temperature Setting	*SW1-3*
65 Degree C	*ON*
55 Degree C	*OFF*

Backplane Photo

HDD Side View



Host Side View



Backplane Cable Information

Please refer to below adapter cable for HDD activity LED in case HDD can't support activity signal

Part No.	Description	Compatible with HBA RAID
26H112106-001	HDD Activity LED Cable 1 x 7 pins (backplane site) to 2 x 4 pins (HBA RAID site) , 600mm	Areca , 3Ware , High Point (required 1 pcs)

Compatible Chassis Model List

Part No.	Description	Chassis Model
80H102106-004	6 ports SAS/SATAII Backplane for HDD fail LED	SR106 (required 1 pcs)

Ordering Information for HDD Cage

Part No.	Description	Chassis Model
84H220910-045	6 ports SAS/SATAII Backplane Assembly (BK)	SR106